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NUCLEAR REGULATORY COMMISSION

Title: Public Meeting on Environmental Scoping
Meeting for an Application for a Special Nuclear Material License for
Triso-x Proposed Fuel Fabrication Facility at Oak Ridge

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

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4 PUBLIC MEETING ON ENVIRONMENTAL SCOPING MEETING FOR
5 AN APPLICATION FOR A SPECIAL NUCLEAR MATERIAL LICENSE
6 FOR TRISO-X PROPOSED FUEL FABRICATION FACILITY AT OAK
7 RIDGE

8 + + + + +

9 WEDNESDAY,

10 JANUARY 25, 2023

11 + + + + +

12 The Meeting convened in Ballroom A and B
13 of The Doubletree by Hilton Oak Ridge, 215 South
14 Illinois Street, Oak Ridge, Tennessee 37830 at 7:00
15 p.m. EST, Brett Klukan, Facilitator, presiding.

16
17 PRESENT:

18 BRETT KLUKAN, Facilitator

19 JILL CAVERLY, Office of Nuclear Material
20 Safety and Safeguards

21 MATT BARTLETT, Office of Nuclear Material
22 Safety and Safeguards

23

24

25

P-R-O-C-E-E-D-I-N-G-S

(7:00 p.m.)

MR. KLUKAN: Okay, welcome everyone. Sorry for the short delay. Tonight, again, this is the NRC scoping meeting for the Environmental Impact Statement for the proposed TRISO-X Fuel Fabrication Facility in Oak Ridge, Tennessee. My name is Brett Klukan. Normally I serve as the regional counsel for Region 1 of the U.S. Nuclear Regulatory Commission. However, tonight I will be acting as the in-person facilitator for this meeting. In that task, I will be assisted by Lynn Renowicz, who you just heard via Teams -- I point up to the sky because I don't know where else to point when I do that -- who will be virtually facilitating the meeting tonight. Please note that tonight's meeting is being recorded and transcribed. Here's our court reporter. We ask that you help us to get a full and clear accounting of the meeting by staying on mute if you're participating via Teams or by phone. We also ask that you please keep -- for those of you in the room -- your electronic devices silent and the side discussions to a minimum. It would also help us out that when it is your turn to speak that you please identify yourself and any group affiliations if you so choose. Okay. All meeting attendees will have their

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1 microphones muted and cameras disabled during the
2 presentation. When we get to the limited question
3 process -- question and answer session -- and then to
4 the public comment portion of the meeting, those of
5 you on Teams can raise your hand to signal that you
6 would like to speak. If you are participating via
7 phone, you raise your hand by pressing star 5. Again,
8 that is star 5. Once our Teams facilitator Lynn
9 enables your microphone, you will then have to mute
10 yourself before asking your question or posing your
11 comment. For those of you participating via phone,
12 you unmute yourself by pressing star 6. Again, that's
13 star 6. And I will go over this again after the NRC's
14 presentations. For those of you attending in person
15 tonight, if you have not all -- if you would like to
16 offer comment this evening and not have already done
17 so, please step outside to register at the welcome
18 table or fill out one of the green cards to let me
19 know that you would like to make a comment this
20 evening. For the sake of simplicity, the speaking
21 order will simply be first come, first served. We
22 will go through the list of in-person attendees who
23 would like to speak, and then we'll go to those
24 participating virtually. If you are having trouble
25 seeing the slides or they are not advancing for you,

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1 those who are participating via Teams, the slides can
2 be found in NRC Adams Library at ML23019AO20. It's
3 easier to find these slides by just going to the
4 meeting notice web page at -- on the NRC's website and
5 there's a link to the slides there. Now for just one
6 quick basic ground rule, threatening gestures or
7 statements under no circumstances will be tolerated
8 and will be cause for immediate ejection from the
9 meeting. If you feel that you've been threatened in
10 any way, please let me know or tell our local law
11 enforcement agent in the back who's positioned, again,
12 in the back of the room. If you have something you'd
13 like to give to the NRC staff, please hand it to me.
14 And one last item -- and I know this is something I'll
15 remind you at the end again, I'm hoping that you will
16 fill out the public feedback form. You can find that
17 feedback form on the public meeting schedule page for
18 this meeting. Your opinion on how this meeting
19 greatly helps us improve the conduct of these meetings
20 as we move forward. Two final reminders, the
21 emergency exits are just straight out that way. And
22 the restrooms are also just out that way. I'd now
23 like to introduce some of the NRC staff we have with
24 us in the meeting this evening. NRC staff, please
25 feel free to raise your hand or stand up when I call

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1 on you. First our presenters will be Jill Caverly,
2 the Environmental Project Manager, and Matthew
3 Bartlett, the Safety Project Manager. We also have
4 with us from the NRC Robert Sun, the Acting Branch
5 Chief for the Environmental Materials Branch. We have
6 John Moses, the Deputy Division Director for the
7 Division of Rule Making, Environmental and Financial
8 Support. We have Marla Morales, the -- another
9 Environmental Project Manager. Jonathan Rowley, the
10 Safety Project Manager. Antoinette Walker Smith, a
11 Licensing Assistant. John Pelchat, State Liaison
12 Officer for Region 2. Isaiah [sic] Johnson --
13 Johnston, excuse me, Technical Reviewer. Cynthia
14 Taylor, a Senior Fuel Project Inspector for Region 2.
15 And Patricia Glenn, a Fuel Facility Project Inspector
16 from Region 2, as well. Additionally, we have with us
17 on Teams Dave Gasperson and Dave McIntyre, both from
18 the Office of Public Affairs. And then with us we
19 have, as well, staff from Numark who are working on
20 the environmental impact statement -- Andrew Marchese,
21 Technical Reviewer; James Douglas, Technical Reviewer;
22 Jason Lancaster, Technical Reviewer; and Emery Hartz,
23 Technical Reviewer. And now, without any further ado,
24 I will turn it over to John Moses for the opening
25 remarks. Thank you.

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1 MR. MOSES: Thank you, Brett. And good
2 evening everyone to tonight's meeting. As you heard,
3 my name is John Moses and I'm the Deputy Director of
4 Rule Making, Environment and Financial Services at the
5 Nuclear Regulatory Commission. I'd like to welcome
6 all of you to this evening's session and we look
7 forward to your comments and questions and feedback on
8 the TRISO-X Fuel Fabrication Facility application. As
9 our staff will describe a little later, our review
10 process has always encouraged both public
11 participation and public disclosure. This public
12 scoping meeting today is one way that we encourage
13 your participation and involvement in the process.
14 I'm looking forward to hearing your feedback from the
15 participants here and those online. On significant
16 issues that you feel are important for us to take a
17 look at and consider in our detailed assessment of the
18 environmental and safety issues that will be included
19 in our review. Our goal is to hear from you, collect
20 any comments you may have, and we thank you in advance
21 for your participation. We also hope to provide
22 useful information on both the process and on the
23 technology that our team is assessing. With that, I'd
24 like to turn it back to our facilitators. And back to
25 you, Brett.

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1 MR. KLUKAN: All right, great. Everyone,
2 I'm now going to introduce again our two presenters
3 for the meeting this evening, that is Jill Caverly and
4 Matthew Bartlett and they will be kind of tag-teaming
5 the presentation tonight. So whenever you're ready,
6 please feel free and then just let Lynn know whenever
7 you'd like the slides to be advanced.

8 MS. CAVERLY: Okay. Thank you. Okay,
9 Lynn, could you go to the next slide? So thank you,
10 I'm Jill Caverly, the Environmental Project Manager
11 for this application. Tonight we've got five meeting
12 objectives. Tonight I'd like to describe the NRC's
13 mission to you, describe the NRC's review process, and
14 the environmental review process, and the safety
15 review process. We're going to describe the scoping
16 process, which is the current stage we're in now,
17 explain ways that the public can provide comments, and
18 lastly, we're going to, as Brett mentioned, we're
19 going to receive your comments. Next slide, please.
20 So just a little background on the NRC. The NRC is
21 charged by federal law to be the nation's only
22 regulator of commercial nuclear materials
23 independently ensuring that these materials are used,
24 handled, and stored safely. Our mission is to protect
25 public health and safety, and promote the common

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1 defense and security, and protect the environment. We
2 do this by regulating the civilian use of radioactive
3 materials. Our job is to protect public health and
4 safety and the environment by thoroughly reviewing
5 each license application that we receive in deciding
6 whether to grant or not to grant that application --
7 that license. The NRC regulates six fuel facilities,
8 93 nuclear power reactors, research reactors at
9 universities, and the civilian use of nuclear
10 materials, transportation of nuclear material, and
11 their storage and disposal as well. So we strive to
12 be an open and transparent agency. And so in our
13 reviews, we take stakeholders' input very seriously,
14 so we appreciate having you here tonight. Next slide,
15 please. Some more background. Our role -- the NRC's
16 role is not to endorse specific projects or select a
17 location for projects. We're an independent regulator
18 that - - and we will determine whether to issue a
19 special nuclear material license for TRISO-X, LLC.
20 The staff will determine if this application meets the
21 NRC's regulation for safety and safeguards and will
22 evaluate the environmental impacts of the proposed
23 action. As we will explain later in the presentation,
24 the results of the impact evaluation will be
25 documented in an environmental impact statement, or an

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1 EIS. This analysis, along with other factors, will
2 form the basis of our decision to license or not.
3 Okay, next slide, please. So we're moving into some
4 of the details of the application. TRISO-X, the
5 applicant, has applied for a license to possess and
6 use special nuclear material for the manufacture of
7 high-assay, low-enriched uranium, also called HALEU
8 fuel at the -- at the proposed fuel fabrication
9 facility in Oak Ridge. So HALEU fuel is a fuel that
10 has been enriched to less than 20 percent uranium-235.
11 TRISO has requested a license term of 40 years, so
12 that was -- that's what's being requested and we're
13 reviewing it, but we have not grant -- we have not
14 agreed to grant a license term yet. We're still
15 evaluating that. TRISO is also planning to start
16 certain pre-construction activities -- start pre-
17 construction activities prior to receiving the
18 license. So these activities will not be related to
19 any of the radiologic safety of the facility. TRISO-X
20 Fuel Fabrication Facility will be located in the
21 Horizon Industrial Park, which I'm sure most of you
22 are very familiar with, abutting portions of Renovare
23 Boulevard. It was previously owned by the City of Oak
24 Ridge and it's about an 110-acre greenfield site.
25 Next slide, please. Okay, so the TRISO-X Fuel

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1 Fabrication Facility, if licensed, would manufacture
2 coated particle fuel for the next generation of
3 commercial nuclear reactors. TRISO-X has proposed the
4 design that anticipates additional manufacturing
5 capabilities to satisfy the needs of a variety of fuel
6 designs and reactors. The site plan rendition here
7 shows a location and the arrangement of the buildings.
8 And for perspective, Renovare Boulevard runs along the
9 right side of that picture. The site includes four
10 buildings for nuclear manufacturing. It has a --
11 there's also an administrative building, raw metal
12 preparation area, and a security facility. If you
13 would like to see more information about the specifics
14 of the safety application, you can do so by going to
15 the NRC's website and looking at the integrated safety
16 analysis -- the public portion of that, and that can
17 give you some more details. Okay, next slide, please.
18 Okay, so just some background on the NRC's process,
19 how we're going to evaluate the application. So if
20 you look at our slide here, it depicts sort of a
21 three-phase approach -- three parallel phase approach
22 to reviewing a license and making a regulatory
23 decision. On the left there, you have the -- in the
24 orange boxes, you have the safety review which is --
25 Matt will get up and talk to you a little bit more

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1 about. And folks -- our safety folks will review the
2 safety portion of the application and make a
3 determination if it meets NRC regulations. That
4 evaluation is -- is written up in a safety evaluation
5 report -- the determination of the staff. Go to the
6 middle -- sort of that middle phase. That's the
7 environmental review portion of the application and
8 that's what we're doing here tonight. We're -- the
9 staff will be looking at the impacts from the proposed
10 project on the environment. And then that -- the
11 determination of the staff's evaluation will be
12 summarized in the evaluated -- in the environmental
13 impact statement. And then on the far right, you'll
14 see that there's an adjudicatory process, and that's
15 more of a hearing process for the public that can --
16 if there's a -- a dispute with the application, it's
17 a -- it's a legal framework that the public can go
18 through to receive an independent evaluation of their
19 -- of -- of their dispute. So if you look at all of
20 these things, all three of those items; the safety
21 report, the environmental impact statement, and if
22 there's an adjudicatory process, all of those will
23 factor into the NRC's final decision whether to or not
24 to grant the license. Okay. Now this is Matt's turn.
25 We're going to turn -- or Matt's going to you about

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1 that orange portion of the --

2 MR. BARTLETT: Next slide, please, slide
3 8. So good evening. My name is Matt Bartlett. I'm the
4 Safety and Safeguards Licensing Project Manager. Jill
5 and I work in parallel. So on this slide, we talk a
6 little bit about the fuel fabrication process. So
7 TRISO-X, as Jill mentioned, receives a high-assay low-
8 enriched uranium, otherwise known as HALEU, fuel
9 that's enriched to just under 20 percent, so 19.75.
10 It's in the chemical form of uranium oxide, U3O8. So
11 just from a safety perspective, many of the fuel
12 facilities that we have in the country typically
13 receive fuel in the form of UF6. UF6 is much less
14 chemically stable. It reacts with water. It's --
15 reacts with heat. Uranium oxide, however, is
16 chemically stable. So from that perspective, it --
17 it's a safer chemical to work with. So when they
18 receive the uranium oxide, it's dissolved in nitric
19 acid. And then they -- as you can see in the second
20 bullet, it's then formed into triple carbon
21 encapsulated uranium microspheres. I have a picture
22 of it there with a cutaway. So that -- that center
23 kernel that's yellow is the uranium carbon center, and
24 then it has the encapsulation around it. So note that
25 that -- that picture there is enlarged, so if you look

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1 just to the right of it, you'll see a pile of the
2 actual microspheres. So they're roughly the size of
3 a period or maybe just a little bit bigger. So then
4 those microspheres -- step 3, bullet 3, they're
5 combined. Many thousands of them are combined and
6 pressed into a pebble. And then they're overcoated
7 with carbon, and then polished which -- which gives
8 you the final -- final pebble which is about the size
9 of maybe a racquetball or a tennis ball. Those
10 pebbles, then, are taken and placed into containers
11 for -- for shipment. The key thing to catch in this
12 process is, this is all fresh fuel, so none of this
13 has been in a -- in a reactor. So from a radiological
14 perspective, very low radiation. It's actually more
15 of a -- of a -- you don't want to inhale it and -- and
16 the chemical hazards would be more of an issue for
17 this. Obviously, you don't want to have a criticality.
18 So let's go to the next slide, slide 9, and talk a
19 little bit about areas important to safety. So for
20 the safety review, we have a -- a review team --
21 technical experts. There's actually 21 areas that we
22 look at as part of the safety review. I just put a
23 couple of them up here. Radiation protection
24 obviously is important. You want to -- as I
25 mentioned, because of -- it's fresh fuel, you want to

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1 minimize contamination so it's often done in glove
2 boxes. From a chemical safety perspective, they --
3 they do use some hazardous chemicals at the facility.
4 I mentioned nitric acid, ammonia. So we -- we look at
5 that very closely. Obviously, you're dealing with up
6 -- up to -- close to 20 percent enrichment, so you
7 want to minimize the potential for a criticality. We
8 have in our regulations that these facilities have to
9 ensure a double contingency. That means at least two
10 barriers to prevent a criticality. This would be
11 things like limiting the amount of mass that's present
12 or limiting the geometry. Fire, obviously, explosions
13 -- they have a number of explosive gases that are used
14 in large quantities, so this is important. And they
15 do have a fire hazard analysis that the NRC will go --
16 go and look at as part of our review. Just some other
17 -- other examples of areas that we look at, I'll just
18 run through them quickly: physical security,
19 financial assurance, environmental safety, emergency
20 response, human factors, transportation security,
21 material control and accounting, geo-technical,
22 structural, integrated safety analysis -- that's a
23 review of all the accidents and the -- the controls
24 that they've put in place to prevent those. So these
25 -- these are the -- the 21 areas we look at. Next

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1 slide, please. For this -- this is just to give you
2 a better idea of where we're at in terms of the
3 licensing review process. So I -- the colors don't
4 come through very clearly, but the top two boxes there
5 are green. Those are the items that have been
6 completed. So the first step is we receive an
7 application from -- from TRISO-X. We received the
8 complete application September 23rd. That kicks off
9 a 60-day just high-level review. We look at the
10 application to -- to see if there's enough for us to
11 do a -- a -- a technical deep dive. So that was
12 completed. We -- we completed the acceptance review
13 November 25th. And then that kicks off -- I lost the
14 slide. November 25th when we accepted it, that kicks
15 off our formal review process. So the formal review
16 will typically run between 30 and 32 months. So if you
17 -- if you work that out, the review time is from
18 November 25, 2022, through about June of 2025. If we
19 get the slide back, I'll talk to the center section.
20 Let's see, okay, there we got it. So the next section
21 shows two boxes next to each other horizontally.
22 That's where we're at now. So that started as soon as
23 we accepted the -- the document and it's going to run
24 until October of '23. So typically, the -- the
25 application we receive -- the application we receive

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1 describes how the facility is going to comply with the
2 regs. We're going to review that to determine if we
3 agree. And -- and we may identify areas where we have
4 questions or where we've identified a consideration
5 that they didn't think about, or we disagree with them
6 on some part of their analysis. So we'll develop what
7 are called a request for additional information. This
8 is just more information we need. So typically, we'll
9 do that as we develop our own report. So we're
10 developing our own report of the -- of the applicant's
11 application. As part of that process, we'll do a
12 number of things. We'll hold meetings with the
13 applicant. We'll conduct audits. We'll get them to
14 send in documentation from their facility that we can
15 look at in more detail. We'll go out to the site,
16 we'll do site visits. All of that will be going on
17 between now and 20 -- sometime in 2024. The goal is
18 for us to be able to write a final safety and
19 safeguards evaluation report. That's -- we've resolved
20 all of our questions and we have a final write-up of
21 why we think this facility is safe and -- and can be
22 licensed. So at that point, our -- we call it the SER
23 -- safety and safeguards evaluation report -- that SER
24 goes to our Office of General Counsel. They review
25 it. It goes to our management. They review it. And

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1 it can also go to an independent licensing board
2 that'll give it a -- a different perspective review on
3 it. Once all that's completed, then we'll make a
4 recommendation to -- to the manager that's going to
5 decide whether or not to issue the license. And
6 they'll take our report, they'll take the
7 environmental impact statement, and if there's a
8 hearing, that'll also feed into that. And then
9 they'll make the regulatory finding. So all that
10 should be completed. The goal is to complete that by
11 June 2025. Back to you, Jill.

12 MS. CAVERLY: Thanks. Okay, move on to
13 the next slide. So Matt just went through that
14 exploded side on the green -- the green pathway or the
15 orange pathway, and now I'm going to go through the
16 green pathway and sort of explode that out a little
17 bit and talk to you about the EIS process. So the EIS
18 process is similar to the safety process. We accept
19 the application for detailed review. We initiate
20 scoping, which is the blue box. It's one of the two
21 opportunities for the public to be involved in our
22 process. So we're here tonight. We're going to
23 complete scoping on February 16th. And so once we've
24 completed that scoping period, we'll collect and
25 review, analyze all of the comments that we receive

1 here, online, and in the mail. And we will use that
2 as we also perform the analysis of the environmental
3 impacts. At that point, we're going to issue a draft
4 EIS. There will also be a scoping summary report and
5 that might be part of the draft EIS or it might be
6 separate. But it will be a public document for folks
7 to review. That'll be issued and then, again, we will
8 ask for public input on the environmental impact
9 statement. So we'll come out, we'll have another
10 meeting similar to this, and we'll ask for input
11 again. After that, we'll again review all of the
12 comments and see how that impacts the draft, and
13 finalize the EIS. And like Matt said, we'll make our
14 recommendation to our licensing official on a
15 recommendation whether to grant the application -- the
16 license or not. So let's go onto the next slide. So
17 the basis -- this is just some background on the
18 environmental review. So our environmental review is
19 based on the requirements from the National
20 Environmental Policy Act, or NEPA. And NEPA requires
21 federal agencies to apply a systematic approach to
22 evaluate the impact of its actions on the environment.
23 So the NRC is preparing the EIS in accordance with the
24 regulations and the guidance of NEPA in our -- in our
25 regulations, which are Tennessee FR Part 51. Next

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1 slide, please. So just a graphic of how we're
2 gathering information. Not only are we meeting with
3 all of you here, we're going to have a site audit with
4 the applicant. We're going to get -- reach out to
5 tribes that might have an interest in the area. We're
6 also looking and talking with other federal agencies.
7 And one of the things we did a lot this week was talk
8 to some of the local government officials. So we'll
9 continue to do that to gather all the information that
10 we need and input to make a, you know, informed
11 decision of -- an informed analysis of the impacts.
12 Okay, next slide, please. So like Matt was mentioning,
13 there's a bunch of areas that the safety folks look
14 at. And on the flipside for the environmental review,
15 we don't look at many resource areas, about 13 of
16 them. And just a reminder, we're looking at what the
17 project is going to do to those resource areas. So if
18 we place this project at this site, what's going to
19 happen to the surface and groundwater, to geology and
20 soils, historic, cultural -- and we reach out to
21 tribes that may be located here but may also have had
22 just a historic connection to this area. So they may
23 be located in another state, but if there was a
24 historic connection to this area, we'll reach out to
25 those tribes. As you can see, visual scenic is also

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1 reviewed. Air quality, noise, ecology, we cover
2 again, but, so -- okay, next slide, please. This is a
3 scheduling slide for your information. Again, we're
4 in the scoping process. And so that process is a 60-
5 day period. We'll be ending that on February 16th.
6 We're going to expect to publish the draft EIS in
7 early 2024, so about a year from now. And, like I
8 mentioned earlier, there's going to be at least 45-day
9 comment period on the draft. And then that
10 information will be put into the final EIS which we
11 expect in 2025. And so we're sort of starting to
12 align with the safety folks on that. Okay, next slide,
13 please. So this is just some information we -- the
14 scoping process actually helps us to determine the
15 scope of the EIS, how we need to identify the
16 boundaries of the evaluations and the resource areas.
17 We'd like to identify significant issues that are
18 pertinent to the environmental review. And, also,
19 eliminate issues that are maybe not significant, you
20 know, when we start looking at the project in more
21 detail. We also are trying to identify other
22 environmental reviews and consultations. That was
23 very helpful talking to some of your local elected
24 officials. We found some -- some of that information
25 very helpful, so -- okay, next slide, please. So what

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1 -- what are some of the scoping comments we're looking
2 for? So some of the examples of something that we
3 like to hear are other -- other local projects that
4 are being planned or developed nearby. Have you
5 identified any wildlife or habitat that should be
6 considered? Are there any cultural resources that
7 should be considered in our evaluation? Are there
8 particular populations nearby that should be
9 considered? And are there unique characteristics of
10 the project site or local communities that the NRC
11 should consider in its evaluation? Okay, next slide,
12 please. Okay. So finally, how to provide your
13 comments. You can do that here. We have a court
14 reporter and we are going to be collecting all of your
15 comments. There's also a federal rule- making
16 website. It's -- it's for the entire federal
17 government, so if you decide to go to that website and
18 enter your comment there, please use the docket number
19 NRC-2022-0201 to identify that your comment goes with
20 this project. You can also mail handwritten comments
21 to our -- our office. That -- there's the -- the
22 address there and, again, please identify the docket
23 number. That would be helpful for us. And I think
24 what we get mostly is the e-mail and we have a
25 dedicated e-mail box. It's TRISOX- EIS@nrc.gov. And

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1 I'd just like to note -- note that the dash is at a
2 different place for this. So it's -- TRISO-X is
3 generally TRISO-X, but this is TRISOX-EIS, so -- so
4 these are all the ways that we collect your comments.
5 And we would like -- like that to -- we'd like you to
6 make those comments by February 16th. Okay, last
7 slide, please. Okay, so second-to-last slide. So
8 this is some resources for you to look at some of the
9 information on this project. There's -- at the
10 bottom, there's a TRISO-X -- the NRC's TRISO-X
11 application website. I got some feedback today that
12 it's -- it's hard to find the -- the documents, but if
13 you go to the bottom of that -- that site and you
14 click "licensing," there's a -- it'll open up another
15 page and there's a whole lot of information there.
16 All the incoming and outgoing documentation is -- is
17 listed there. And I think Matt and I will be changing
18 that to make it a little bit more user-friendly on
19 Friday when we get back, so -- but I would suggest
20 starting there. But there are other ways you can come
21 -- you can contact our public document room, the --
22 the rule-making site and, also, we have a -- a
23 document management system that you can search. Okay,
24 next slide, please. So here we are, we were all
25 introduced at the beginning of the meeting here, but

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1 definitely feel free to either call us reach out by e-
2 mail. We appreciate talking to the public, so feel
3 free to reach out at any -- any time if you have --
4 just if you have questions about how the process
5 works, we'd be happy to do that. Okay. And lastly,
6 if there's any media here, our -- our Office of Public
7 Affairs folks couldn't be here with us tonight. But
8 if you have media inquiries, there's an OPA.resource
9 e-mail box and they're very quick at responding to any
10 inquiries from the media. So with that, I'm going to
11 turn it back to Brett. We're having technical
12 difficulty.

13 MR. KLUKAN: That -- that was my fault. I
14 was the one who taped it up. So there are chairs. I
15 was just going to ask that when I got back up to the
16 podium is if everyone who has a chair wants one, well,
17 now there are plenty. So if you'd like a chair,
18 please. So before -- and -- and thanks Jill and Matt
19 for the presentation. Before we begin with the public
20 comment portion, if you'll look at the agenda for the
21 meeting, you'll note that there's a short allocation
22 of time for process questions. What we're looking for
23 here are questions on what you just heard from Jill
24 and Matt regarding the -- the process for the NRC's
25 review, whether it be on the safety or the

1 environmental side. If you have questions related to
2 that process, this is an opportunity to ask them now
3 to make sure you understand what we're looking for in
4 terms of how the commenting process works. If you
5 have questions about the application itself or TRISO-X
6 facility, those are left for the public comment
7 portion of the meeting, okay? We'll capture those as
8 comments. What we're just looking for now are
9 questions with respect to the NRC's review process.
10 So does anyone have any questions, if so -- I'm going
11 to start within the room. If so, please go to the
12 aisle microphone. Okay. I'm not hearing anyone, so
13 again, if -- we'll just check to see if there are
14 anyone online who has a process question. And again,
15 to -- to ask a question, please raise your hand if you
16 are participating via Teams, using the raised hand
17 function, which is up on the top of your screen. Or if
18 you're participating via phone, press star 5. Again,
19 that is star 5 to raise your hand. And Lynn, let me
20 know if anyone -- if we have any questions.

21 MS. RENOWICZ: Sure. So far none, but
22 we'll give it a moment or two. Thank you. John,
23 we'll wait another moment. So far, no hands raised
24 online. It appears no questions as of yet, Brett.

25 MR. KLUKAN: All right, thanks. And

1 again, during the public comment portion if you do
2 have process questions, you can raise them at that
3 time. We just wanted to carve this out for this amount
4 of time just in case anyone had any questions before
5 we get into the public comment portion. So now we
6 will start with any elected officials or their
7 representative, including any representatives of
8 Native American tribes who would like to offer any
9 prepared statements at this time. We're going to
10 start within the room. I know we have with us Mark
11 Watson, who is the City Manager of the City of Oak
12 Ridge. Mark, if you would like to come to -- for
13 elected officials, I'll let you take your pick of
14 podiums. The camera's on you on that one as well, so
15 whenever you're ready, sir.

16 MR. WATSON: Well, good evening. My name
17 is Mark Watson. I'm the City Manager for the City of
18 Oak Ridge. And we appreciate this on-site scoping
19 hearing and meeting today -- and regarding TRISO-X.
20 This is a project that the city government, including
21 myself, have been involved with for well over two
22 years now as we have learned more and more about the
23 project. We are interested in proceeding with this
24 project. We had our meeting this afternoon. I would
25 say that a couple of observations that we had from our

1 fire -- fire chief and fire department, that there was
2 interest in seeing a little bit more about the
3 building and containment facilities associated with
4 this as the EIS is -- is developed, whether the safety
5 and building standards are NFPA qualified or -- or
6 other such -- such matters. I think that, also, just
7 from a access standpoint, we have found in our
8 community that a placement of the documents at the
9 public library are -- are very important and provide
10 a transparent ability for people to learn more about
11 the project. The time schedules is very important to
12 us, so if those times vary during the process, the
13 City of Oak Ridge would appreciate knowing any changes
14 or adaptations to that process because we're dealing
15 with logistics and the power supplier for this -- for
16 this particular project. As we look at utilities and
17 -- and roadways, it occurred after our meeting today
18 that as we look at transportation of the HALEU
19 product, if we look at the turning radius associated
20 with that facility to a delivery site, that would be
21 a question to take a look at. So those are just a
22 couple of initial comments. Again, we thank you for
23 the opportunity to be here today.

24 MR. KLUKAN: Well, thank you for
25 participating and thank you for those comments and

1 suggestions. Are there any other elected officials or
2 representatives of elected officials in the room with
3 us this evening who would like to offer prepared
4 statements at this time? All right. Going once,
5 twice, all right. Lynn -- again, if you're an elected
6 official or representative of an elected official
7 participating via Teams or on the phone, please raise
8 your hand at this time if you'd like to offer a
9 prepared statement. Again, using the raise hand
10 function in Teams or by pressing star 5 on your phone.
11 That is, again, star 5 on your phone. Once Lynn
12 unmutes you if you are participating via phone, you
13 will have to mute yourself pressing star 6. So we'll
14 give individuals online a minute here. Lynn, let me
15 know if we have any raised hands.

16 MS. RENOWICZ: Sure. Yeah, still I'm
17 waiting. So far none, but we'll give it obviously a
18 few moments. Nothing yet, but we'll wait another
19 moment. And no hands raised as of yet.

20 MR. KLUKAN: Okay, thank you, Lynn. All
21 right. So again, as I mentioned at the outset of the
22 meeting, we are going to proceed with those of you who
23 have registered to offer a comment in-room first, and
24 then we'll go to those participating virtually. I
25 have -- just getting a sense of time, I have six

1 people registered to speak this evening. Just a -- by
2 show of hands, if you know you would like to speak
3 this evening but did not give -- or -- or prepare a
4 green card yet raise your hand at this time. Meaning,
5 if you now realize after the presentations you would
6 like to make a comment but you didn't fill out one of
7 these yet, just to give me a sense of how many
8 additional people we have. Anyone? Okay. All right.
9 That -- yeah, that helps me out, thank you. Okay. So
10 without any further ado, we're going to start with our
11 first speaker. I would ask you try to keep it to
12 around three to four minutes, if possible, just to
13 make sure we have enough time for everyone. So our
14 first speaker will be Steven Mead. Please come up to
15 the microphone. And, again, please introduce yourself
16 whenever you are ready.

17 MR. MEAD: Yes, my name is Steve Mead.
18 I've lived in Oak Ridge since 1987 when I retired from
19 the nuclear submarine force. I spent time in nuclear
20 submarines, nuclear weapons. I had occasions when I
21 signed for enough nuclear weapons to redo all of World
22 War I and II combined, so I have a little bit of
23 background. When I came to Oak Ridge, I worked at the
24 hyperreactor. I was the transportation manager for
25 research reactors. I became involved in the movement

1 of transportation of civilian highly-enriched uranium
2 components, so I have a little bit of background in
3 this. I want to thank DOE for the professional
4 oversight that they give to civilian use of nuclear
5 materials because it's really important, because the
6 one thing that has to happen when you work in nuclear
7 materials is everything's got to be done by the book
8 and everything's got to be safe. It has to start
9 safe, it has to stay safe. I know there's a lot of
10 people that have concerns about nuclear energy and its
11 use because it can be misused. I mean, we've had, you
12 know Chernobyl, you know. And we've had some places
13 where people that should have been responsible
14 certainly weren't, and I'm not going to get into that.
15 But -- but I'm a big advocate of the small modular
16 reactor system. If we want to really save our
17 environment, reduce CO2 emissions, and have an
18 electric grid that will service the needs of our
19 nation, we've got to have some major way to supply
20 electricity that is -- that is doable and is safe, and
21 does not affect the environment in any significant
22 way. And that's the -- the small -- I see the small
23 mod reactors being. If anybody in Oak Ridge wants to
24 -- wants to talk to me, I'm -- I -- I've lived here a
25 long time. I was a county commissioner for 12 years

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1 ending in August for Anderson County. And, like I
2 said, I worked 26 years at the plants in Oak Ridge,
3 including emergency management for about 12 years of
4 that, and then production facilities at Y-12 for the
5 last eight-and-a-half. I was also on the Oak Ridge
6 site specific advisory board for the Department of
7 Energy for a number of years and got to do site -- a
8 lot of visits to sites all around the nation that
9 handled nuclear materials. And it's got to be done
10 right, it's got to be done safe, and it's got to stay
11 safe. And if anybody has questions about the
12 engineering issues, the containment, like when people
13 talk about criticality safety and maintaining control
14 of the amount of material in the -- in -- in the
15 geometries and stuff, I understand all that. And so
16 if that -- if that's kind of a mystery to you, I can
17 help you understand that. I just want -- I just want
18 to try and help. I just want to be an asset because
19 I'm going to live here the rest of my life and I hope
20 that's a long time, and certainly well beyond the
21 starting of this plant. Thank you so much. I -- you
22 can find me in the phone book and my e-mail, I can
23 make it available to anybody that wants. But it's
24 meadsteven1@pm.me -- meadsteven -- Mead -- M-E- A-D,
25 Steven with a V, the number 1 at pm.me. That's an

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1 encrypted mail system so you can make sure that
2 everything is -- that you send me is -- is kept safe.

3 UNIDENTIFIED SPEAKER: P-M what?

4 MR. MEAD: It's an encrypted e-mail
5 system.

6 UNIDENTIFIED SPEAKER: Oh, at P-M what?

7 MR. MEAD: At pm.me. Thing called
8 protonmail. It's -- it's military-grade encryption to
9 and from my computer. And if you have another one and
10 it goes to you encrypted with that, the company can't
11 even read it on the way because it's encrypted in mine
12 and decrypted in yours. Anyhow -- and so I'm a big
13 advocate of this happening but again, it's got to be
14 done right and so I -- I'm going to be watching this
15 stuff and looking at materials, and I appreciate DOE
16 making this information available. Thank you.

17 MR. KLUKAN: Thank you. I -- I -- I
18 failed to mention as well that if you are -- are --
19 when I call upon you to speak, if you need a
20 microphone brought to you, just please let me know and
21 I can bring you over this microphone or one of the
22 staff will bring you a microphone over for your use.
23 So please just raise your hand and -- and -- to let me
24 know that when you're called. The other thing is, I
25 mentioned this at the outset. This meeting is being

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1 transcribed and the transcript will be made public.
2 So don't share anything during this meeting that you
3 don't want to be made publicly available. So that's --
4 that's his e-mail, all right? Okay.

5 MR. MEAD: Mine already is.

6 MR. KLUKAN: All right. So there -- there
7 you go. So next up we'll have Michael Russell.
8 Michael Russell, whenever you're ready, please come to
9 the microphone.

10 MR. RUSSELL: I'm Michael Russell. I'm
11 here as a concerned Oak Ridge citizen. I live in Oak
12 Ridge and -- and have my -- have raised my family here
13 for the last almost 13 years. And we appreciate the
14 Commission coming out and -- and presenting this
15 information as well as the -- the TRISO-X folks. And
16 from a scoping standpoint, you know, as always, we do
17 expect a thorough review, a thorough development of
18 the -- of the safety evaluation reports and -- and the
19 EIS. Appreciate you sharing the early processes and
20 the activities. We do want you to take into
21 consideration the wonderful greenways as -- as -- as
22 you do -- as part of those environmental impacts. But
23 the -- and other wonderful environmental
24 considerations that we have here in Eastern Tennessee
25 in -- in the Oak Ridge area. As you can see, they're

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1 well-used and a big part of what makes Oak Ridge what
2 it is today. We also want you to take into
3 consideration the other facilities near and close to
4 the -- (microphone cuts out).

5 MR. KLUKAN: I knew that was going to
6 happen. Sorry.

7 PARTICIPANT: We'll get you Velcro next
8 time.

9 MR. RUSSELL: -- so -- and take into
10 consideration the other facilities at the ETTP site
11 including the other -- and proposed nuclear
12 facilities, radiological and, of course, the airport.
13 We expect a thorough evaluation. And as you can see
14 with the -- the commissioner and -- and others in the
15 room, as you can expect the -- Oak Ridge is pretty
16 unique about understanding the -- the technical
17 aspects of -- of any of the applications, so we
18 appreciate that detail. And I also wanted to, you
19 know, thank you for TRISO-X in coming to town. We
20 appreciate it as part of the new nuclear renaissance.
21 I have been a part of communities that were very naive
22 on the nuclear energy and the nuclear aspects of
23 licensing in those areas. And as you can see, Oak
24 Ridge is very informed and typically fairly -- fairly
25 supportive, so I appreciate it.

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1 MR. KLUKAN: Thank you very much. And can
2 we switch to show the -- the OTS, if you will, or the
3 video on the screen here? Thank you. All right.
4 Great. All right. Our next speaker will be -- and
5 thank you again for your comments. Our next speaker
6 will be David Wilson. David Wilson.

7 MR. WILSON: Thank you very much. My name
8 is David Wilson. I am chairman of the Oak Ridge
9 Industrial Development Board. And we are the owners
10 and managers of Horizon Park. And I speak today
11 simply because I've had the privilege to meet with Dr.
12 Pappano and a lot of his staff at TRISO-X. And I know
13 as -- about as much about nuclear energy as when I
14 flip my lights on at the house, it's probably provided
15 from that source. Anyhow, I moved my family here in
16 the late '70s. My background is commercial banking,
17 though I retired some years ago because I got tired of
18 it. But, I wanted to -- to express our feelings. And
19 I -- if I had any concerns about nuclear power, first
20 of all, I would not have moved my family -- my wife
21 and two small children here at that time. Secondly,
22 not one second have I ever been concerned about
23 nuclear power or energy and -- and we've got a fair
24 abundance of it in -- in Oak Ridge. And as you can
25 see, a lot of people in this room, if you asked them

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1 to raise their hand, probably worked out at one of the
2 nuclear, you know, Y-12, X-10, K-25, we have all these
3 numbers, so we're used to it. The people that live
4 here are accustomed to nuclear power. This facility
5 just happens to be a -- a facility that's going to
6 manufacture fuel for these reactors. But Oak Ridge is
7 a great place, and if you select it -- if TRISO-X had
8 gone almost to any other city or -- or location in the
9 United States, they would not have found a more ideal
10 place than the city of Oak Ridge because we're
11 accustomed to it. It's -- it's not uncommon. People
12 don't -- are not fearful of it. It's safe. It's
13 secure, you know. And -- and in my perspective,
14 nuclear energy will be the energy that we get our
15 power from in the future. I don't think, you know, we
16 -- we understand that fossil fuels are on their way
17 out. That -- that's a matter of fact. And I don't
18 think the sun and the wind is going to be able to
19 provide enough energy to satisfy 350, 400 million
20 people and all the companies that go along with it.
21 So I'm in favor of it. I think as -- as a spokesman
22 right now for the Oak Ridge IDB, we're very much
23 supportive of TRISO-X and we hope that favorable
24 consideration will be given. Thank you very much.

25 MR. KLUKAN: Well, thank you for your

1 comments and for attending the meeting this evening.
2 Next, we will have Christine Michaels. Christine
3 Michaels. And, again, whenever you're ready, please
4 introduce yourself.

5 MS. MICHAELS: Good evening. Christine
6 Michaels. I'm President of the Oak Ridge Chamber of
7 Commerce and also a -- a City of Oak Ridge resident.
8 Thank you for the opportunity to comment. We do ask
9 you to support TRISO-X's application for license to
10 use special nuclear material to manufacture HALEU fuel
11 in Oak Ridge. This first-of-its-kind facility plans
12 to bring 400 quality jobs to the area and fulfill an
13 important need in the nuclear arena. The fuel TRISO-X
14 will make will power small modular reactors that
15 represent our nuclear future. It may also be able to
16 work with entities such as TVA to bring new energy
17 solutions to our area and to the nation. With NRC's
18 diligent oversight and recognizing that this new fuel,
19 and even as spent fuel, is inherently safer than
20 traditional models. We believe the project to be
21 environmentally sound. We believe that the needed
22 safety precautions will be taken working in concert
23 with the City and its departments. We urge the NRC to
24 make its review in the most thorough, yet expedient --
25 with the word expedient underlined -- fashion to

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1 enable this project to advance through the process.
2 Thank you.

3 MR. KLUKAN: Thank you. Next, we will
4 have Tracy Boatner. Tracy Boatner.

5 MS. BOATNER: Good evening. My name is
6 Tracy Boatner. I am the President of the East
7 Tennessee Economic Council here in Oak Ridge. And the
8 -- on behalf of the East Tennessee Economic Council or
9 ETEC, we would like to express our support for the
10 Nuclear Regulatory Commission's preparation of an
11 environmental impact statement for the TRISO-X fuel
12 facility. We believe that nuclear reactors have the
13 potential to provide the U.S. clean, safe, carbon-
14 free, cost- effective energy, and they all need an
15 advanced fuel source. East Tennessee understands and
16 appreciates the need for industries that utilize
17 nuclear resources to produce beneficial products.
18 East Tennessee provides a pool of talented individuals
19 in the region that have training and understanding of
20 nuclear operations. The Horizon Center in Oak Ridge
21 provides access to the research and development
22 capability and collaboration with some of the world's
23 experts relative to nuclear fuel. And the TRISO-X
24 Fuel Fabrication Facility will create jobs and have a
25 positive economic impact on our region. And,

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1 therefore, ETEC supports the fuel fabrication facility
2 that TRISO-X is proposing to put at the Horizon
3 Center. Thank you.

4 MR. KLUKAN: Thank you very much. I think
5 -- ma'am, you said that you wanted to have a comment?
6 Do you want a microphone brought to you?

7 MS. MARTIN: Yes, please. I don't walk
8 very well.

9 MR. KLUKAN: And, again, just start by
10 saying your name.

11 MS. MARTIN: I'm Fay Martin. I retired
12 from ORNL in 1996. Part of my job was to write NEPA
13 documents -- EIS and so on. So I -- what I'm just
14 wondering is why is it taking so long till 2025. Some
15 of us will be dead by then.

16 MR. KLUKAN: I don't know if anyone on the
17 staff wants to answer that one or comment further, but
18 thank -- thank you for -- for your -- your -- your
19 question. And, again, you can go to the NRC website
20 to look at the status of the project. And, again, it
21 was put up I think it was on the last slide or the
22 second- to--last slide of where you can get more
23 resources of what's been put on the docket and
24 whatnot. Okay. That -- is there anyone else in the
25 room who would like to pose a comment at this time?

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1 Okay. Hearing none, Lynn, I am now going to turn it
2 over to you. So again -- make sure I don't drop this
3 -- if you are participating via Teams and would like
4 to post a -- or pose a public comment, please "raise
5 your hand" using the raise hand function or press star
6 5 on your phone. And so Lynn, with that, I will turn
7 it over to you.

8 MS. RENOWICZ: Yeah. Okay. So we'll wait
9 and see what happens. So far no one's raised their
10 hand, but, of course, we'll give it a few more
11 moments. No hands yet, maybe we'll just give it
12 another 30 seconds to see if anybody -- okay. We --
13 okay, Alan Metzger has a question so I'm going to --
14 I'm clicking "allow mic." Okay. Alan, and if you're
15 able to unmute yourself -- Alan, are you able to
16 unmute yourself? I did unmute you so that once you
17 unmute yourself you're able to ask your question.
18 Alan, if that doesn't work, because right now I did
19 unmute you, and so you just have to unmute yourself.
20 And if that doesn't work, if you wanted to call into
21 the number -- should we give that information, Brett?
22 I have a number here.

23 MR. KLUKAN: Yes, so I will -- I can give
24 out the phone number. It is -- the teleconference
25 line is (301) 576-2978. And the passcode for it

1 should be 650893050#.

2 MS. RENOWICZ: Yeah, and so we'll wait a
3 few moments. Did anybody else -- so far that's the
4 only hand raised. And no other hands raised, so we'll
5 wait for Alan's call.

6 MR. KLUKAN: Just double-checking. We
7 have plenty of time, so if you -- if you'd like to
8 offer a public comment and you desire to do so, please
9 feel free.

10 MS. RENOWICZ: And actually, I just made
11 him a participant. If you want to try again, Alan,
12 online.

13 MR. METZGER: There we go.

14 MS. RENOWICZ: Good.

15 MR. KLUKAN: Great. We can hear you.

16 MR. METZGER: Okay. Let me bring a
17 different screen up here just briefly. I'm sorry. I
18 was --

19 MS. RENOWICZ: Take your time. That's
20 fine.

21 MR. METZGER: -- trying to find the
22 passcode. All right. So my name is Alan Metzger. I
23 live in Illinois, the nuclear capital of the country.
24 Sorry, Oak Ridge. And I would like to make a couple
25 of comments. First of all, I'd like to make sure that

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1 -- that the -- the commission and staff considers the
2 impact of the alternative fossil fuel energy sources
3 that will get used if fuel manufactured at this
4 facility is for some reason delayed or not available
5 and the health and environmental impact that this will
6 have will be considerable. The biggest risk in
7 nuclear energy is not building it, and therefore,
8 burning stuff. So I want to make sure that -- that's
9 -- that's a consideration. I'd also like to encourage
10 the staff to consider -- unless there are moderate
11 impacts are expected, that the staff would consider an
12 environmental assessment, an EA, instead of an EIS
13 environmental impact statement. If that's possible to
14 -- to make it just a little bit easier to reduce the
15 amount of time that we burn fossil fuels. Thank you
16 very much.

17 MR. KLUKAN: Well, thank you very much for
18 your comments. Lynn, please let me know if there's
19 anyone else who raises their hand at this time.

20 MS. RENOWICZ: Sure. So we'll give it a
21 bit of time. So far, no other -- no other hands, but
22 let's just give it a little bit and see what happens.
23 Okay. No hands so far, but we'll just give maybe 30
24 more seconds. No -- no other hands raised.

25 MR. KLUKAN: Thank you very much, Lynn.

1 All right. This is your last chance. All right.
2 Going once, twice, all right. So we're now going --
3 here's how this is going to work. Since we offered it
4 up to the public to offer comments till 8:30, we are
5 not going to make you sit here till 8:30. We are going
6 to, however, sit here until 8:30. So we're now -- I'm
7 going to turn it over here in a minute to John Moses
8 to give us our closing remarks, though technically the
9 meeting will remain open. We'll figure this out.
10 We'll put a pause on it. So after John is done and we
11 say our goodbyes, we'll pause it and then if we have
12 to open it up, we'll go back and -- on to the court
13 reporter. So just one thing I might -- and thank you
14 all very much for coming this evening. Please, if you
15 would take just a couple minutes to go onto the NRC
16 website, go to this meeting link and then fill out the
17 public feedback form, that really helps us out
18 figuring out the direction of these meetings -- what
19 you thought worked well, what you think we can do
20 better, any ideas or suggestions you have, we really
21 appreciate it. Without any further ado, thank you
22 very much for coming out this evening and I'll turn it
23 over to John Moses for the final remarks. Thank you.

24 MR. MOSES: Thank you, Brett. And on
25 behalf of the entire staff, I wanted to thank everyone

1 for taking the time this evening both in-person to
2 travel here, and for those of you online to
3 participate in today's hybrid meeting, and for your
4 questions and comments. In terms of having scoping
5 meetings, I -- I -- I think we'd be hard pressed to
6 think of a -- of a group that has more expertise than
7 the folks in this room, and folks online, and probably
8 a lot of folks who didn't even come to the meeting.
9 So thank you for sharing your expertise and your
10 experience and understanding of -- of the risks, the
11 benefits, the need for process. We honestly and -- and
12 sincerely appreciate your comments and your
13 suggestions on how we can incorporate the correct
14 issues into our assessment, as well as how we can
15 improve and expedite our process. In terms of process,
16 I'd like to briefly summarize a -- a few of our next
17 steps. As was described earlier, we're in the midst
18 of a 60-day comment period for scoping. It will end
19 on February 16, 2023. And our team is going to gather
20 those comments that we've heard today, those that
21 we've already received, those that we are due to
22 receive through February 16th from
23 www.regulations.gov, from the e-mail site, remember
24 it's trisox -- no dash, then a dash, EIS for the e-
25 mail, and any postal mail comments that you send to us

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1 as well. Our team will compile those comments,
2 evaluate those, and consider how to incorporate them
3 into our draft environmental impact statement. As
4 Jill had mentioned, we'll put together a response to
5 comments document that covers each and every comment
6 that's submitted and the topics therein, and how we
7 address each one of those. We anticipate issuing the
8 draft environmental impact statement early in 2024.
9 Once we issue the draft environmental impact
10 statement, we'll come back again for another public
11 comment process for your feedback, comments,
12 suggestions both on the substance of the environmental
13 impact statement, and once again on our process to get
14 there. So we look forward to your comments and
15 questions once we've prepared a -- a draft evaluation.
16 We appreciate today's comments and questions and
17 exchange of information. And we will consider every
18 position that was put forth, and then those that will
19 be put forth or may be put forth in the -- the near
20 future. Even though this is an environmental scoping
21 meeting, I want to ensure everyone understands both at
22 this meeting and online any comments that pertain to
23 the safety side will also be shared with our safety
24 team, some -- some of whom are here today, and they'll
25 consider those. So once again, have a wonderful

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1 evening. Thank you for coming here and thank you for
2 your expertise and support for the public process as
3 we evaluate this information. Have a good evening.
4 Thank you.

5 MR. KLUKAN: All right. Lynn, we're going
6 to go on mute so just let us know if anyone raises
7 their hand and I'll just, like, make a periodic
8 announcement when -- if anyone comes in, okay? Thank
9 you.

10 (OFF THE RECORD).

11 COURT REPORTER: All right. You're on the
12 record.

13 MR. DEAN: Okay. All right. I go by my
14 middle name, Ray, but William's so much easier. I
15 have a PhD in geology. I was trained -- both my
16 terminal degrees at UT, okay? So I know the local
17 geology. I'm a resident here. I've lived here in
18 Tennessee -- in the Knoxville area since '94. I've
19 lived here since 2010. And I -- I'm really concerned
20 about the siting of the -- this particular facility on
21 top of karst limestone. Now, keep in mind the data
22 that I -- that I looked at came from the environmental
23 reports submitted by the applicant. And they
24 acknowledge they do have karstic limestone there. So
25 you have highly fractured, karstic limestone. It's

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1 tipping to the southeast, as everything does around
2 here. It's very problematic in terms of contaminant,
3 transport and so forth. So a lot of the activities
4 that are going to occur there could lead to some
5 expressions through this karst -- some transmission
6 through this karst. I would like for the people here
7 doing the scoping of it to oversee the -- to look
8 around at the neighboring karst. We'll find sinkholes
9 on-site. There's even trails called the sinkhole
10 trail. If you pore through the data that you guys
11 supplied to us, you'll find that they did borings that
12 said there were fractures that were filled with clay
13 in this limestone. And so, if you follow the -- the
14 site plan of removing all the soil, which then
15 displaces potential water, they're converting a whole
16 bunch of ditches and retention ponds with radically
17 changing the groundwater hydrology. This will
18 probably dry out the clay which causes those bores to
19 open, so you've opened up a whole bunch of karst that
20 is normally closed and you've now had it in its
21 current state. So given that, you need to do some
22 modeling for what might happen here because there --
23 there are sinkholes that do form from human
24 intervention. So what they're going to do is, is
25 they're going to put up impervious surfaces, cut off

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1 the groundwater, it's going to allow the openings
2 probably of some of this karst to form. And then
3 they're going to have this increased flux of water
4 into the surrounding wetlands. Some of those wetlands
5 are known. They have mercury. In fact, all of them
6 do all along Poplar Creek. Mercury is a big
7 contaminant coming from Y-12. It's in the -- the bank
8 sediments. When you have this displaced hydrology,
9 you're going to have big clusters of water that's
10 going to mobilize the mercury. This is sounding good
11 all -- this is just what's going on from -- from just
12 the manipulation of that land with all these
13 impervious surfaces. So I have a lot of grave
14 concerns about that coupled with other issues. And --
15 and just, once again, your submitted applicant's
16 materials show that there are radionuclides that have
17 gone from the Oak Ridge property -- the DOE property
18 have gone under the Clinch River and have shown up on
19 the other side. So this just shows the complexity.
20 You can't predict where this stuff goes. And to take
21 a greenfield site and turn it into this, really is --
22 is not a very wise idea. And contrary to the folks
23 who want to cheerlead this -- because I've seen a lot
24 of cheerleading here -- is the fact that Aiken, South
25 Carolina was chosen as a site. Turns out this site

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1 has, per your documents, was given to TRISO-X for
2 free. They gave them so that's why they want to use
3 it. But a better geological site, and one that has
4 the support of the DOE with the -- down in Aiken,
5 South Carolina with the Savannah River property. So
6 there's an alternative site that probably would be
7 much more secure. And as I mentioned to you earlier,
8 I have a -- a problem with the soft target here -- of
9 the building that can't withstand a 747 strike to
10 mobilize contaminants or -- or -- or set an
11 environmental catastrophe here that would jeopardize
12 operations of Y- 12 or -- or a national nuclear
13 security complex. And I think that's a very big deal
14 and I don't think you'd really get that elsewhere. So
15 I -- I think there's a lot of caution here. I will
16 submit this stuff in writing and I'll cite what -- the
17 pages that I got this information out of your report
18 for your -- for your edification. I want you guys to
19 look at the karst that's -- that's known to be there
20 and then consider this fully.

21 MS. MORALES: Well, I --

22 MR. BARTLETT: So just from a safety
23 perspective, we have a structural reviewer and we did
24 not initially have a geo-technical reviewer. And when
25 he saw that there was karst in the area -- so we

1 definitely are aware of that. He asked us to bring a
2 geo-technical expert on board. So we now have both a
3 geo-technical person and a structural person. And
4 some of the items you've identified -- the karst
5 features, the potential for an aircraft impact, both
6 of those have been identified as areas we want to look
7 at in more detail. So again, we're just starting our
8 review.

9 MR. DEAN: Sure. And I want you guys to
10 think more of the holy of it.

11 MS. MORALES: Yes.

12 MR. BARTLETT: Because the guys have seen
13 the same thing that I think you've seen --

14 MS. MORALES: Yes.

15 MR. DEAN: Right.

16 MR. BARTLETT: -- which is these are
17 things that we need to look into.

18 MR. DEAN: Oh, they're -- they're huge.
19 Yeah.

20 MS. MORALES: And so I'm also a geologist.
21 So yes.

22 MR. DEAN: Oh, yeah.

23 MS. MORALES: I was like -- you said
24 geologist, like, we're kin now. So to echo what Matt
25 said in terms of they're doing on the safety side for

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1 geotechnical, structural, aircraft. On our side, we
2 read the same things you did, the environmental report
3 -- we need to look at more information. And part of
4 this process, because they're so new, is to request
5 additional information. When we see clarification
6 things, like where is those karst features? How is it
7 being characterized? Where are the sinkholes? Is
8 your retention pond big enough to handle this flow of
9 water? Those are all questions that we may ask in the
10 future as part -- to get more information to better
11 characterize the subsurface. So that will be the
12 environmental component. And they -- they'll be doing
13 the safety component for the exact same reason. So
14 we're both seeing the exact same thing as you are.
15 And this is very early in the process, but yes.

16 MR. DEAN: Right. Along with the
17 environmental component, the Black Oak Ridge
18 conservation easement which abuts that property, I
19 mean, this is not going to be beneficial to that as an
20 ecological system when you have light and noise and --
21 and other sorts of -- of issues going on there from --
22 from that. So I -- I -- I just really, you know,
23 putting it next to a place that's supposed to be
24 preserved seems a little remiss.

25 MS. MORALES: And that's one of the things

1 the environment -- so, visual and noise actually --
2 like, they take that into account. Like, what is this
3 facility's impact to the surrounding environment? So
4 the environmental report will look at that.

5 MR. DEAN: And -- and something just to
6 point out with the -- the -- the voracity of the city
7 of Oak Ridge and IDP to stand behind regulations and
8 so forth. I was a member of the environmental quality
9 advisory board here in Oak Ridge for seven years. And
10 a few years back, 2020, 2021, I noticed -- and I have
11 pictures I can show you later -- of -- of sediment
12 fences that were put on the property. Have you got --
13 have you been on the property?

14 MR. BARTLETT: Yes, we went the other day.

15 MR. DEAN: Have you seen the sediment
16 fences that are all over the place?

17 MR. BARTLETT: No.

18 MR. DEAN: They've been there almost 20
19 years. And so I reported, like -- man, sediment fences
20 are supposed to be temporary, you know, six to 18
21 months when the -- so they've left these things out
22 there. I reported --

23 MR. BARTLETT: Is that a fence that
24 catches --

25 MS. MORALES: Sediment. Yeah.

1 MR. DEAN: Sediment. Yeah, it keeps it
2 from a wetland, yeah. And so --

3 MS. MORALES: For erosion runoff,
4 essentially.

5 MR. BARTLETT: Is that along where we
6 drove down --

7 MR. DEAN: And they are failing and so I
8 reported -- they're -- they're not supposed to be
9 left. And so I reported to the City. They just told
10 me to contact municipal and I was on the city board.
11 And so they're not really responding. They still left
12 it there. That was two years ago I reported this
13 stuff. And I was shocked that they were antiquated and
14 derelict. The sediment fences just left on the entire
15 property.

16 MS. MORALES: Yeah.

17 MR. DEAN: And so what's going to happen
18 -- there's some on the -- on the client's property,
19 too. You can see it across there.

20 MS. MORALES: But sediment load and
21 erosion are also something we look at as well.

22 MR. DEAN: But -- but that's the improper
23 use of these sediment fences and the fact that folks
24 aren't going to respond when they've shown that they
25 have an issue should be a concern when you're going to

1 put a nuclear facility out there. And so that's the
2 response of our -- our city leaders -- TDEC and so
3 forth is not - - so I'm done with my comments. I'll
4 show you the picture.

5 COURT REPORTER: Are we okay to go off the
6 record.

7 (Whereupon, the above-entitled matter
8 went off the record at 8:20 p.m.)
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